

METHOD OF FORMING A METAL GATE ELECTRODE

Abstract of the Disclosure

5 The present invention includes a method of forming a metal gate
electrode on which whiskers are not formed after performing a selective
oxidation process and a subsequent heating process. The metal gate electrode
is formed by forming a metal gate electrode pattern which is comprised of a
polysilicon layer and a metal layer, and performing a selective oxidation
process. After the selective oxidation process, the metal gate electrode
undergoes a subsequent heating treatment. The selective oxidation process is
carried out in a nitrogen containing gas ambient, so that a metal oxide layer is
minimally formed on the metal layer. As a result, it is prevented from
causing whiskers on the metal layer.

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